## OPENING STATEMENT SENATE HEARINGS ELIAS A. ZERHOUNI, M.D. Director-nominee- NIH

Senator Kennedy, Senator Gregg and members of the committee: I'm honored to appear before you today as President Bush's nominee to the directorship of the National Institutes of Health.

If confirmed, I am looking forward to working with Secretary Thompson, an enthusiastic supporter of science and Congress to best serve the institution that has made our country the undisputed leader in Biomedical Research. I'd like to share with you some of my background and then tell you about my vision for the NIH.

I was born in a small town in Western Algeria. My father was a math and physics teacher who gave me a love for the sciences.

At age 22, I saw the first published image of a CT scan, and decided that medical imaging would be the perfect field for me as it combined medicine, physics and computer science.

In 1975, a few weeks after our wedding, my wife Nadia and I came to this country, to Johns Hopkins where I encountered an extraordinary environment for innovation and discovery and great mentors who helped me become the physician, teacher and scientist I am today.

My research led me to develop new imaging methods for lung cancer and cardiac diseases some of which led to less invasive surgery. I made some inventions and had the good fortune to see a few of them translated successfully from the "bench to the bedside".

Throughout my career, I realized the importance of inspiring and leading groups of multidisciplinary scientists because, in my field, progress cannot be made without biologists, physicians and physical scientists working together. I built a successful clinical and research division and learned how to be entrepreneurial when necessary.

I was given progressively larger areas of responsibility first as Chairman of the Department of Radiology and later as Executive Vice Dean of the Johns Hopkins School of Medicine. Through these experiences I've interacted with the entire spectrum of biomedical scientists from the most basic to the most clinical.

This led me to develop a certain perspective about where we stand today in the biomedical sciences:

First, I have become convinced that only further fundamental discovery will allow us to meet the healthcare challenges facing us.

Second, we need to bring the fruits of our research to clinical testing more rapidly and enhance our ability to prevent and detect disease much earlier.

Third, I believe that Biomedical Research is at an important turning point that may require new strategies.

Let me show you a device developed by combining robotics, molecular chemistry, imaging and computer chip manufacturing technologies. In my hand, I hold what's known as a DNA chip. It can determine in a single experiment which of several thousand human genes are active in a biological sample.

Only a few years ago, it would have been impossible to ask the questions we're now able to explore on a scale unprecedented in history.

Obviously, we've made great progress, but let me show you how much more we have to do. Look at the tip of this needle; it's several times larger than any cell in our body.

Yet that single cell contains all of the human DNA, not just a subset like this DNA chip does, and it also contains the entire molecular machinery necessary to transcribe and translate that DNA into all the complex networks of interacting molecules that make us what we are.

Today, we've discovered most of the parts of our biological systems. Now we need to go on a journey to understand how all these parts fit together in health and in disease: this is, by far the most formidable scientific problem ever faced by mankind.

Progress increasingly will depend upon fields of science beyond medicine and biology. The scientific team of the future will be multidisciplinary. We need to encourage cross-cutting initiatives.

We need to continue to train, recruit and retain the best talent in biomedical research because in the final analysis it is always the creative spark of the unique individual that leads to new knowledge and real progress.

Sometimes this new knowledge will raise deep moral issues as we're now witnessing. Throughout history, tensions between science and society have developed when a scientific discovery challenges deeply held beliefs. The resulting debates can be polarizing, and I have the interesting privilege of coming before you at just such a time!

What then, should be the role of the NIH director in that regard?

As I've told several of you, Disease knows no Politics. The NIH, a public agency at the vanguard of the fight against disease, is to serve all of us. The NIH and its director should not be or made to be **factional** but must always remain **factual**.

My role as NIH director will be to inform the debate by developing and communicating the most objective scientific data. The NIH director should actively promote the necessary research within the policy guidelines laid out by the President, and in strict compliance with all laws passed by Congress.

As Executive Vice Dean at Johns Hopkins, I was instrumental in creating an institute for stem cell engineering primarily because I was concerned about the lack of any federal funding to advance the fundamental research still needed in this promising but fledgling field.

This is why I believe that, in the current state of science, the August 9th policy set by the President was an important advance.

For the first time it allowed NIH funding for stem cell research, something which had not been done under previous administrations.

On another important topic, I and many others were pleased to see the doubling of the NIH budget you started by 1998 and soon to be completed as proposed by President Bush. This occurred despite all of the difficulties faced by the nation.

During my visits with you, I was impressed by your strong support for NIH.

But I also heard, loud and clear, your wish to see these resources managed effectively. I will work hard to develop the information necessary to optimize the hard earned resources of American taxpayers. I will do my best to work with Congress to accomplish this goal.

I'd like to take this opportunity to acknowledge the outstanding service of Dr. Ruth Kirschstein the acting director of NIH and also that of Dr. Harold Varmus the immediate past director. Both of whom have been very helpful to me during this process.

I'd like to especially thank my wife and family for their constant and understanding support.

Finally, Mr. Chairman, as an immigrant, I am deeply touched by being here today, because it says about our great country what no other country can say about itself.

I would be pleased to answer any questions you may have for me.